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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,161	11/21/2001	Masashi Aonuma	Q66561	9563

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SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
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Washington, DC 20037-3202

EXAMINER

VAN HANDEL, MICHAEL P

ART UNIT	PAPER NUMBER
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2623

MAIL DATE	DELIVERY MODE
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08/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No. 09/989,161	Applicant(s) AONUMA, MASASHI
Examiner MICHAEL VAN HANDEL	Art Unit 2623

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 30 July 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-4,9 and 11-19.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/Chris Kelley/
Supervisory Patent Examiner, Art Unit 2623

Continuation of 3: Applicant has amended claims 2-4, 12, and 13 to depend from claim 11 rather than claim 1, thereby raising new issues that require further search and/or consideration.

Continuation of 11:

Regarding claim 11, the applicant argues that the examiner ignores important teachings of the USB specification and recitations of the claims in rejecting pending independent claim 11. The examiner respectfully disagrees. Applicant first specifically argues that the bulk transfer pipe is a "stream pipe" and therefore has data constantly draining into (or out of) the host, and that, as such, there is no preservation of data in the pipe, or output from the buffer, in such circumstance. Applicant directs the examiner to USB Specification section 5.8.2. The examiner notes; however, that section 5.8.2 states nothing about the preservation of data in the pipe, or output from the buffer. Section 5.8.2 only states that a bulk pipe always has communication flowing either into or out of the host for a given pipe. Section 5.8 of the USB specification explicitly states that Bulk Transfers provide retry of transfers, in the case of occasional delivery failure due to error on the bus. Section 4.7.2 also states that bulk transfers are used to transfer bulk data typically used for scanners. Bulk data is sequential and reliable exchange of the data is ensured by using error detection and retry.

Further regarding claim 11, the applicant specifically argues that the bulk transfer does not have a NAK, except when the sending device is not available. The examiner respectfully disagrees. The applicant specifically argues that, in the instance where the transferring device is not available, there will be no data transfer, because the data transferring device is not available to transfer the data. Applicant directs the examiner to USB Specification section 8.5.1. Section 8.5.1 states that a NAK indicates that data was received without error, but that the host should resend the data, because the function was in a temporary condition preventing it from accepting the data at this time (e.g., buffer full). That is, if, in the process of transmitting data, the receiver is unable to receive the data due to the buffer being full, a NAK is returned and the transfer is retried. The examiner interprets this to be "the buffer memory retransmits the image data in the event of data loss during transfer over the network," as claimed. Furthermore, if the data packet is received with a CRC or bit stuff error, no handshake is returned. This corresponds to a time out. Section 8.6.3 states that if a time out occurs, the receiver will not toggle its sequence bit. The transaction is then retried. That is, the transaction is also retried if the received data is corrupted. The examiner interprets this as well as "the buffer memory retransmits the image data in the event of data loss during transfer over the network," as currently claimed.

Still further regarding claim 11, the applicant argues that the STALL signal is the output event that occurs when an error has taken place during a bulk transfer. The examiner notes; however, that STALL indicates that a function is unable to transmit or receive data, and that the condition requires host intervention to remove the stall (see section 8.4.4). That is, STALL is only one of the three error conditions that can occur in a transaction (NAK, STALL, or time out)(see section 8.6.3). The STALL condition occurs when the receiving device has an error preventing it from receiving the data. The examiner does not rely on the STALL condition in meeting the limitation of the claim; however, the examiner notes that, even in this scenario section 8.6.3 states that any non-ACK handshake or time out will generate retry behavior.

Still further regarding claim 11, the applicant argues that the examiner's remarks, asserting that "a single error with a successful retry, for example, could happen relatively quickly and would not necessarily result in the USB buffer becoming lost" are inconsistent with respect to claim 11, because the USB network may operate at a variable rate of speed. The applicant specifically argues that if a sequence bit is not toggled for the missed ACK case, the buffer would have to maintain its contents until the affirmative acknowledgement is received, and that therefore it is not inherent that the buffer could have sequential storage while outputting the image from the buffer, because reading of image data would have to be curtailed or the USB buffer would be lost. The examiner notes; however, that the features of continuing to have sequential storage while outputting the image from the buffer in a scenario when the sequence bit is not toggled for the missed ACK is not recited in the rejected claims. The examiner notes that any single circumstance where data is sequentially stored in the buffer memory while being sequentially output from the buffer memory meets the limitation, as currently claimed. As noted in the Office Action mailed 4/30/2008, Camara et al. discloses scanning an image and progressively displaying the image concurrently with the scanning operation (col. 5, l. 54-61). As further noted in that Office Action, buffer memory is inherent to the scanner 24 in order to transfer data on a USB network (USB Specification, section 4.7.5). The examiner notes that data must be sequentially stored in this buffer memory, while being sequentially output in order to progressively display the image as that taught by Camara et al. Furthermore, section 4.7.2 of the USB Specification states that bulk data in a bulk transfer is sequential. As such, the examiner maintains that the combination of Camara et al. and USB Specification meets the limitation of "the image information reading apparatus comprises a buffer memory for storing the image data for the sheet and sequentially stores in the buffer memory the image data obtained at the time of reading the image data while sequentially outputting the image data from the buffer memory, wherein the buffer memory retransmits the image data in the event of data loss during transfer over the network," as currently claimed.

Regarding claim 19, the applicant argues that the references fail to show certain features of applicant's invention; however, it is noted that the features upon which applicant relies (i.e., that there be a guarantee that the data will be transferred from the buffer while simultaneously the memory is read into the buffer) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further regarding claim 19, the applicant argues that the reliance on Fig. 5 of Camara et al. does not support the rejection, as the progressive row-by-row output suggests output at a constant rate, rather than a variable one. The examiner respectfully disagrees. USB Specification states that the bulk data transferred in bulk data transfers typically consists of larger amounts of data, such as that used for scanners, and that bulk data is sequential.

